

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P277019

Luminaire Tested: **24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P277019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH RDP LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1671.4 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

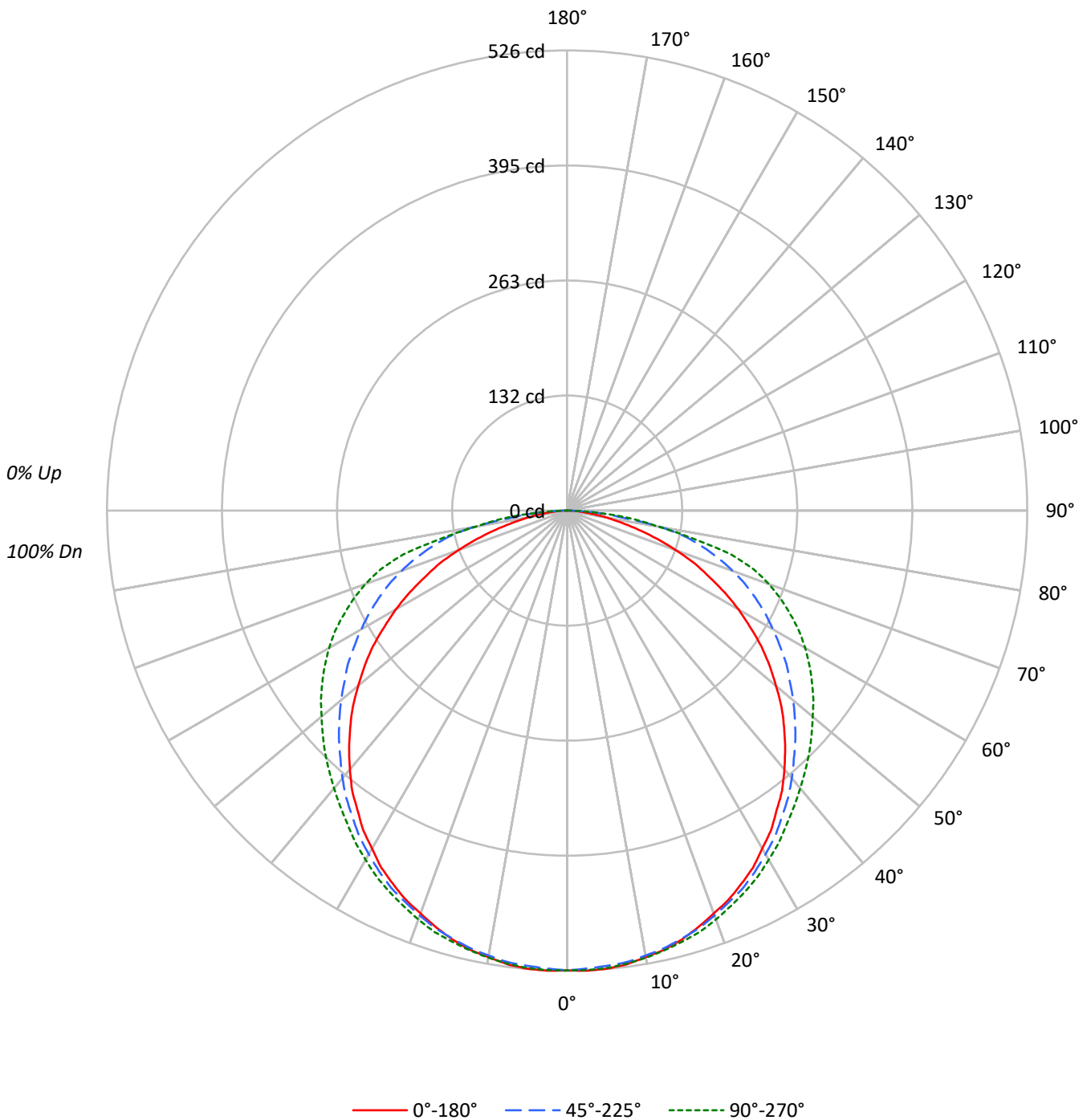
Input Watts (W): 19.623  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P277019

CATALOG NUMBER: 24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P277019

CATALOG NUMBER: 24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	707	707	707
5°	710	705	709
10°	708	706	709
15°	707	706	710
20°	702	705	712
25°	699	707	714
30°	693	705	716
35°	686	703	719
40°	679	702	728
45°	667	702	745
50°	652	706	767
55°	636	718	801
60°	609	732	846
65°	570	757	897
70°	518	793	965
75°	440	836	1009
80°	347	841	816
85°	256	641	716



TEST NUMBER: P277019

CATALOG NUMBER: 24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.9	3.0
10°-20°	143.5	8.6
20°-30°	219.4	13.1
30°-40°	268.3	16.0
40°-50°	285.9	17.1
50°-60°	273.4	16.4
60°-70°	231.6	13.9
70°-80°	155.6	9.3
80°-90°	43.9	2.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	412.8	24.7
0°-40°	681.0	40.7
0°-60°	1240.3	74.2
0°-90°	1671.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1671.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	526	526	526	526	526	
5°	526	525	522	525	525	50
15°	507	507	506	511	510	143
25°	471	473	476	480	481	217
35°	418	421	428	436	438	262
45°	351	356	369	385	391	270
55°	271	281	306	330	342	241
65°	179	197	238	269	282	178
75°	85	115	161	188	194	91
85°	17	34	42	45	46	21
90°	0	0	0	0	0	



TEST NUMBER: P277019

CATALOG NUMBER: 24CZ2-30HE-RDP-UNV-L92765-W2A1-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	525.6	525.6	525.6	525.6	525.6
2.5°	526.4	526.4	524.0	525.6	525.6
5°	525.6	524.8	522.3	524.8	524.8
7.5°	523.1	522.3	520.6	523.1	522.3
10°	518.2	518.2	516.5	519.0	519.0
12.5°	514.0	513.2	512.3	515.7	514.8
15°	507.4	507.4	506.5	510.7	509.9
17.5°	499.1	499.9	500.7	504.1	504.9
20°	490.0	491.6	492.5	497.4	497.4
22.5°	481.7	482.5	484.2	489.1	489.1
25°	470.9	472.6	475.9	480.0	480.8
27.5°	460.1	460.9	465.1	470.9	471.7
30°	446.0	448.5	453.5	460.1	460.9
32.5°	433.6	436.1	441.9	448.5	450.2
35°	417.8	421.2	427.8	436.1	437.7
37.5°	403.7	406.2	414.5	423.6	426.1
40°	386.3	391.3	399.6	410.4	414.5
42.5°	368.9	373.9	383.8	397.9	402.9
45°	350.7	356.5	368.9	384.7	391.3
47.5°	332.4	339.1	353.2	371.4	378.9
50°	311.7	320.0	337.4	358.1	366.4
52.5°	291.8	301.8	320.8	344.1	354.8
55°	271.1	281.0	305.9	330.0	341.6
57.5°	247.9	261.1	288.5	315.9	328.3
60°	226.3	238.8	271.9	301.8	314.2
62.5°	203.1	219.7	255.3	286.8	299.3
65°	179.1	197.3	237.9	269.4	281.9
67.5°	157.5	177.4	220.5	252.0	264.5
70°	131.8	156.7	201.5	233.0	245.4
72.5°	107.8	135.1	181.6	212.2	223.8
75°	84.6	115.2	160.8	188.2	194.0
77.5°	63.0	95.3	139.3	150.9	146.7
80°	44.8	76.3	108.6	102.8	105.3
82.5°	29.0	58.0	67.2	76.3	78.8
85°	16.6	34.0	41.5	44.8	46.4
87.5°	7.5	12.4	16.6	16.6	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)